

1	PROCESSES	16	FOUNTAINS OR DRINKING TUBES AND STRAWS
2.1	.Of weather control or modification	17	.Ornamental
2.2	..Snowmaking	18	..With illuminating means
3	.Including electrostatic charging	19	...With ground distributing means (e.g., lawn sprinklers)
4	.Vibratory or magneto-strictive projecting	20	...With recirculating means
5	.Of fuel injection	21	..With reversible feed and waste chambers
6	.Involving slow diffusion	22	..Fluid pressure discharging means (e.g., aspirating)
7	.Including centrifugal force or spattering	23	...Liquid pump, pulsator or follower
8	.Including mixing or combining with air, gas or steam	24	.Drinking
9	..And additional dissolving or entraining of material in liquid stream	25	..With or for attachment to faucet
10	.Including dissolving or entraining in liquid stream	26	...Swivelly mounted single outlet means
11	.Of discharge modification of flow varying	27	...Swingable into or out of deflecting position
12	..Involving drinking or ornamental fountains	28	..With catch basing
13	.Including heating or cooling	29	...With flow line valve
14.1	WEATHER CONTROL	29.3	....Portable, or with self-contained liquid holder
14.2	.Snowmaking	29.5	....Leg or foot actuated valve operator
690	ELECTROSTATIC TYPE	30	...Extensible or flexible bubbler nozzle
690.1	.Induction charging	31	..Converging jets or bubblers (e.g., bubble cups)
691	.With automatic safety feature	32	...With self-closing discharge valve
692	.With electrogasdynamic generator in spray device	33	..Portable drinking tubes and straws
693	.Spray device recovers unused particles	34	SLOW DIFFUSERS
694	.With cyclical movable support	35	.With empty or refill signal or indicator
695	.Plural spray devices	36	.Garment or body attached
696	.Having plural exit openings	37	.Gravity flow of liquid from supply holder
697	.Fixed member deflects exiting material	38	..Free drip to open holder
698	..Forward of nozzle	39	..Barometric flow to secondary holder
699	.With impeller (e.g., vibrator)	40	...Drip discharge from secondary holder
700	..Rotary	41	....To porous distributor to atmosphere
701	...With spray portion intercept member	42	...Porous distributor to atmosphere
702	...With axially spaced impeller surfaces	43	..To porous distributor exposed to atmosphere
703	...Dish- or cone-shaped impeller	44	.With wick or absorbent means removing liquid from holder
704	.With fluid entrainment		
705	..With air outlet forward of material outlet		
706	..With charging electrode mounted on spray device		
707	...Extending forward of material outlet		
708	.Pressurized spray material		

45	..Serially arranged wicks or absorbent means	73	.Position or extent of motion indicator
46	...With means for drip escape from casing	74	.With spray material quantity or flow indicating means (e.g., sight gauge)
47	..Nonuse housing or casing arrangement (e.g., stored in supply)	75	WITH VISCOSITY OR TEMPERATURE RESPONSIVE CONTROL MEANS
48	...Reel-type storage	76	WITH PRESSURE OR FLOW EQUALIZATION MEANS TO PLURAL DISTRIBUTORS
49	..With flow varying means	77	ORCHARD-TYPE MOBILE DISTRIBUTOR COMPRISING FLUENT DISCHARGED INTO GASEOUS CONVEYING CURRENT
50	...Relatively movable wick and supply for discharge or adjustment	78	.With current directing louvers
51	..With means for drip escape from holder	79	WITH MEANS FUSING SOLID SPRAY MATERIAL AT DISCHARGE MEANS
51.5	..In housing having multiported wall spaced from absorbent means	80	.Plural supply means for solid spray materials
52	.Reel or spool type support means	81	.Electric arc, spark plug or induction heating
53	.Liquid supply in absorbent or porous media only	82	.Nozzle with molten pool holder
54	..Rigid solid form media	83	.Wire or rod type supply
55	..With enclosing casing	84	..Moving feeder for fusible wire or rod
56	...Pad type	85	.With supply holder for fusible material (e.g., pulverulent solids)
57	.With support for porous or apertured encasing means	86	INJECTION NOZZLE HAVING CAPILLARY TYPE FEED PASSAGES
58	.With means to adjust casing porosity or openings	87	INJECTION NOZZLE HAVING PLUNGER OR VALVE CONTROLLED BY PRESSURE BEYOND NOZZLE OUTLET (E.G., COMPRESSION PRESSURE OPERATED)
59	..By alignment of apertured members	88	UNITARY INJECTION NOZZLE AND PUMP OR ACCUMULATOR PLUNGER
60	.Solid form vaporizable material	89	.Accumulator plunger biased to discharge fluid
61	WITH SELECTIVE PROPORTIONING OR CORRELATED FLOW FOR PLURAL FLUIDS	90	.Plunger interconnected or mounted bypass
62	.Having traversing motion responsive means	91	.Plunger interconnected or mounted valve (e.g., outlet valve)
63	WITH CUTOFF OR FLOW VARYING MEANS OPERATED BY MEANS RESPONSIVE TO DISCHARGED FLUID (E.G., GROUND MOISTURE SENSING)	92	.Fluid operated plunger motor
64	.With overriding second control means	93	FLOW REGULATOR OPERATED CONCURRENTLY WITH INTERMITTENT FLUID PUMP
65	.By level or weight in testing receiver	94	.Plural motor surfaces on flow regulator (e.g., opposed)
66	SERIALLY OPERATED DISTRIBUTION MEANS	95	UNITARY INJECTION NOZZLE AND VALVE WITH CONTINUOUSLY INTERMITTENT OPERATOR
67	WITH SELECTIVELY PRESET FLOW CUTOFF OR INITIATING MEANS		
68	.By rate of flow or volume means		
69	.By programming means		
70	.Timer means		
71	WITH SIGNALS, INDICATORS, RECORDERS, METERS OR CHANGEABLE EXHIBITORS		
72	.Audible		

96	INJECTION NOZZLE OPENED BY RELIEVING SUPPLY (E.G., ACCUMULATOR TYPE)	673	..Plural scatterers receiving material axially
97	PATTERN CONTROL BY SYNCHRONIZING FLOW REGULATOR MEANS WITH CYCLICALLY MOVING DISTRIBUTOR	674	..Feed means outside of primary supply container
98	.Plural outlets with abutment operated flow diverter	675	..Screw conveyor
650	CONTAINER FOR NON-FLUID MATERIAL, AND SCATTERING MEANS	676	..Including movable gate, barrier or valve upstream of scatterer
651	.With loading or loading facilitating means	677	..Speed varying means for driven scatterer or feed
652	.Scattering by direct manual movement	678	..Limit means stopping feed
653	.Body supported	679	..Rotating scatterer receiving material peripherally
654	.With means generating or supplying gaseous mixing current	680	...Rotating feed or strewing unit (e.g., beater, etc.) upstream of scatterer
655	..Laterally extending scatter unit	681	.Rotating scatterer
656	.Scatterer fed by plural containers	682	..Plural
657	.Container tilted for discharge (e.g., dump truck, etc.)	683	..Including agitating means
658	.Scattering means is flail	684	..Including specific driving means
659	.Scattering means has to and fro movement (e.g., vibratory, etc.)	685	...From ground wheel
660	.With overload release or relief	686	...Manual or pedal
661	.With means for mounting on tractor	687	..Scatterer receives material axially
662	.With feature relating to liquid material	688	...Scatterer has radially directed tube
663	.Convertible or combined	689	.Scatterer is tubular or in surrounding housing
664	.Ambulant container and laterally extending scatterer	99	WITH MEANS CAUSING INTERMITTENT INTERRUPTION OF SUPPLY TO DISTRIBUTOR MEANS (I.E., ON- OFF)
665	.Including means varying scatter pattern of rotating scatterer	100	.Ground wheel controlled intermitter
666	..Adjustable deflector	101	WITH MEANS FOR FLUCTUATING FLOW OR PRESSURE OF FLUID SUPPLIED TO DISTRIBUTOR MEANS
667	.Plural, rotary scatterers, on intersecting axes or coaxial and counter rotating	102.1	WITH MEANS TO VIBRATE OR JIGGLE DISCHARGE
668	.Hopper and gravity discharge to scatterer receiving material peripherally	102.2	.By electric transducer (e.g., piezoelectric crystal)
669	..Scatterer at least partially within hopper	103	NOZZLE CARRIED APERTURED SHIELD AND COLLECTOR
670	.Drive from vehicle motor power take off	104	WITH CLEANING MEANS, DRIP COLLECTING, WASTE DISPOSAL OR SOIL PREVENTING GUARDS OR SHIELDS
671	.Including raking type conveyor moving material toward scatterer	105	.Soil preventing gas shield
672	.Including driven conveyor or follower feeding material horizontally towards scatterer	106	.Nozzle cleaner, flusher or drainer
		107	..With means for enlarging spray openings beyond normal operating position
		108	...With separate fluid reacting surface

109	....Reduction of fluid pressure affects opening (e.g., self-draining showers)	132.5	....Coolant is spray fluid or is added to spray fluid
110	..With separate drain or access opening	133	.Spray terminal carrying member carriers heater
111	...Absence of fluid pressure opens drain	134	..With additional upstream heating means
112	..With diverted system fluid or nonspraying fluid for cleaning	135	.Heating means
113	...System fluid diverted	136	..Vapor generator
114	..Solid scraping or clearing member	137	...Plural fluids through outlet means
115	...Member and nozzle mounted for relative motion	138	....One an aspirating fluid for discharge
116	....Member is in flow line	139	..Spaced jacket or compartment for heating fluid
117	.....Member moves through spray opening	140	WITH MEANS MOVABLY MOUNTING SUPPLY MEANS FOR DISCHARGING CONTENTS
118	.....By fluid pressure	141	.Rotating tank type
119	..Return or reverse flow from outlet	142	WITH AGITATION OF SUPPLY MEANS
120	.Waste disposal or drip collecting	143	.Gas agitation
121	..Drip cup or trough	144	.Movably mounted tank or tank part (e.g., vibratory type)
122	...Combined with deflector	145	POROUS OR EXTERNAL WICK DISCHARGE MEANS
123	.Solid scraping or clearing member	152	BODY OR ANIMAL CARRIED
124	WITH SYSTEM FLUID RELIEF OR RETURN TO SUPPLY	153	.Body contour feature
125	.Recirculation within nozzle (e.g., burner nozzle cooling)	154	.Hand manipulated discharge means
126	.By pressure responsive means (e.g., to sump or atmosphere)	146	WITH MOBILE TANK-TYPE SUPPLY MEANS
127	.Return from liquid pump outlet to supply holder (e.g., tank filling, mixing or pump unloading)	147	.Ground traversing wheel-form supply tank
127.1	REACTION MOTOR DISCHARGE NOZZLE WITH JACKETED OR HOLLOW PORTION FOR COOLING FLUID FLOW	148	.With means replenishing system supply
127.3	.With subsequent mixing in main discharge stream in or downstream of nozzle	149	.With means movably mounting supply container relative to its support
128	WITH HEATING OR COOLING MEANS FOR THE SYSTEM OR SYSTEM FLUID	150	.With spray deflecting or compressing means (e.g., striping)
129	.Employing waste heat or exhaust gases	151	..By gas stream means
130	.Vehicle mounted heater and spray device	155	.Operational means interconnected with ground traverse
131	..With plural fluids through outlet means	156	..Ground wheel operated discharge means or controller
132	.In terminal element (e.g., injection nozzle cooling)	157	...Ground wheel operated pump
132.1	..Heat exchange fluid	158	....Gas pressure pump
132.3	...Cooling of terminal element	159	.Spray boom or bar type distributor
		160	..With motor means imparting movement to distributor during use
		161	...Plural bars or booms
		162	...Plural spray heads individually mounted for motion

163	..Plural diverse bars or booms	744	...Propelling means
164	..Adjustable distributor	745	....Reel take-up
165	...Extensible or telescoping boom	746	....Intermittent grip or inching type
166	...Plural sections articulated or pivotally mounted	747	....Fluid motor or spray fluid operated
167	....Symmetrically disposed outboard of carrier	748	...Supply line traversing means
168	.....With central section	749	....Hydrant coupling
169	...Flexible coupling section to distributor	750	.Track or guideway
170	..Having means to selectively control discharge paths	751	..Overhead type
171	.Aircraft carried	752	..Reciprocating
172	.Vehicle drawn or carried	753	...With extensible support
173	..Track guided (e.g., rolling stock)	754	.Jet directed toward or along supporting surface (e.g., lawn rakes)
174	...Locomotive cab type attachments	193	DISTRIBUTOR HAVING OVERFLOW DISCHARGE (E.G., WEIR TYPE)
175	..With flexible coupling section	194	.Escape to fluid conveying current
176	.Adjustable distributor	195	FLEXIBLE FLOW LINE OR OUTLET STORAGE OR RETRIEVAL MEANS
722	MOBILE DISTRIBUTOR	196	.Flow control responsive to flow line, outlet or storage means movement
723	.Irrigation device	197	.With retrieval facilitating means
724	..Open pond or ditch type supply	198	.Reel and ground supported frame
725	...Floating distribution means	200	WITH FIXED SUPPORT FOR OR GROUND INSTALLED SUPPLY MEANS (E.G., STATIC CONSTRUCTIONAL INSTALLATIONS)
726	..Nozzles spaced along mobile pipeline	201	.Embedded or buried sprinkler
727	...Including additive supply means	202	..Street curb installed
728	...Center pivot	203	..With sprinkler head elevating means
729	....With noncircular coverage	204	...Elevating means responsive to flow of spray fluid
730	....Including means allowing articulation of adjacent pipe sections	205	....With spring assisted retraction
731	.....With means to detect misalignment	206	....Distributor continuously moves during spraying
732	...Including means allowing articulation of adjacent pipe sections	207	.Multiple spray heads connected for serial flow
733	....With means to detect misalignment	208	.Building features
734	...Trail tubes	209	..Overhead or ceiling mounted supply conduit
735	...Propelling means	210	.Moving (non-ground traversing) distributing means
736	....Reel take-up	211	SIMULATIONS
737	....Prime mover	214	SLINGER OR SPLASHER; OR DEFLECTOR ROTATED RELATIVE TO EFFLUENT
738	....Fluid motor or spray fluid operated	214.11	.With addition of other fluid downstream of distributor
739	...Guided translating distributor	214.13	..Distributor motion caused by fluid flow
740	....Supply line traversing means		
741	...Wheel mounted for rotation about longitudinal axis of pipeline		
742	...Longitudinal movement of pipeline		
743	..Propelled or guided translating distributor		

214.15	..Plural fluid outlets from distributor	233	..Deflector causes movement of distributor
214.17	..With combining of fluids and subsequent distribution	236	..With undulating or irregular cam track for noncircular pattern control
214.19	..One of relatively axially movable concentric flow paths continuously rotating	237	..Spray fluid motor drive means (not reaction)
214.21	..With pump or interior guide vanes for fluid	238	..By weight of accumulated fluid
214.23	...Adjustable or deformable	239	..Continuously operative rectilinearly reciprocating motor
214.25	..With combining of diverse fluids at or upstream of distributor	240	..Rotary motor drive (e.g., turbine type)
215	..With separate pump or movable conveyer means delivering to distributor	241	...With step-by-step advance motion
216	..Bowl-like rotating sleeve conveyer	242	...Reciprocating or oscillating distributor
217	...And scoop delivering to distributor	243	..Multiple distributors supported for relative motion or on different axes (one may be stationary)
218	..Endless belt conveyer		
218.5	..Screw or spiral conveyer	244	..One distributor drives another
219	..Slinger or splasher dipping into or immersed in supply	245	..Coaxially arranged distributors
220	..Horizontal axis rotary distributor	246	..Distributor with diversely shaped or oriented terminal members or outlets
221	..Submerged impeller type splasher or slosher	247	..Adjustable or shiftable terminal member
222	..Spray apertured casing spaced about distributor	248	..Groups of terminal members or outlets spaced along axis of rotation
222.11	..Nozzle delivers fluid to deflector	249	..Circumferentially alternating diverse terminal members or outlets
222.13	..Nozzle continuously moves		
222.15	...Deflector causes movement		
222.17	..Fluid actuated deflector		
222.19	...Plural streams to unitary deflector	251	..Reaction-type nozzle motive means
222.21	...Eccentrically mounted	252	..With brake, lock or retarder
223	..Disc impeller type or bowl-like slinger or deflector	253	..Terminal members adjustable simultaneously or radially swinging
224	..Disc or impeller type	254	..Filter bed type or fluid seal
225.1	DISTRIBUTOR CONTINUOUSLY MOVES RELATIVE TO SUPPORT DURING SPRAYING	255	..Oscillating or reciprocating distributor
226	..With supply holder or plural substance mixing	256	..Control of speed or axis of rotation shiftable (manual valves excluded)
227	..Compound motion of distributor or terminal member about plural axes	257	...Variable outlet aperture size
228	..Sediment collector or internal diverter baffle	258	...Varying jet to change tangential reaction component
229	..Wiggler or flexible distributor	259	..With binding preventing means or seal
230	..With impact motive means	260	...Distributor vibrating or jarring means
231	..Including deflector	261	..Support details for moving distributor
232	..Movable during operating cycle for pattern control		

262	..With flow controller	273	WITH GROUND OR VERTICAL SURFACE SUSTAINED SUPPORT MEANS
263	.Fluid motive means	275	.Support and deflector unit forms base for supply conduit or terminal outlet member
263.1	.Electric motive means	276	.Ground or object penetrating support
263.2	.Power takeoff from another device	279	.Supply passage configuration forms stand
263.3	.Transmission details	280	.Pole, stand or extension carried head
264	.Support details for moving distributor	280.5	..Adjustable support
265	..Adjustable standard or support	281	...Extensible
265.11	REACTION MOTOR DISCHARGE NOZZLE	282	.Wall or bracket mounting
265.13	.With retractable noise suppressing stream divider	283	..Bracket-type support
265.15	.With erodible, frangible or fusible nozzle part	285	.Flow controller and ground support interconnection
265.17	.With addition of secondary fluid upstream of outlet	288	WITH SOLID MEANS AS GUARD OR PROTECTOR
265.19	.With means controlling amount, shape or direction of discharge stream	288.3	.Bumper or guard protects distributor
265.23	..Fluid jet for stream deflection	288.5	..Arcuate or circular
265.25	..Plural controlled outlets	289	COMBINED OR CONVERTIBLE
265.27	...Selective total discharge through diversely shaped or directed outlets	290	INCLUDING SUPPLEMENTAL GAS SHAPING OR SHIELDING JET
265.29	....Controller moves into fluid path from position closing one outlet	291	.Air shield surrounds projected airstream (i.e., air gun)
265.31	....Axially moved discharge portion opens side outlet	292	.Angularly adjustable as to point of convergence
265.33	..Radially outermost flow defining wall adjustable	293	.Gas-driven rotatable jet orifice carrier
265.35	...Nozzle aiming adjustable	294	.And additional downstream liquid nozzle
265.37	...Radially inwardly movable wall	295	.On one side only of spray orifice
265.39	....At least three pivoted flaps form outlet	296	.Plural sets of gas jet orifices
265.41	.....With adjustable upstream flow path portion	297	..One or more sets selectively usable
265.43	....Resilient or deformable wall	298	..Jets coupled to turn stream about longitudinal axis
266	TERMINAL OUTLET MEANS CONNECTED IN SERIES FOR THROUGH FLOW	299	.Noncircular supplemental orifice (e.g., special shape)
267	.Terminal outlet means in or on flow line coupling	300	.Adjustable gas flow directing or controlling means
268	.With casing or support	301	..Rotatable port-carrying member effects flow control
269	.With flexible or articulated flow line section	302	INCLUDING SUPPLY HOLDER FOR MATERIAL
270	NOZZLE WITH AIR SUPPLY MEANS TO OPERATOR	303	.Plural holders for diverse materials
271	WITH NOZZLE OR FLOW LINE ATTACHED PENETRATING MEANS	304	..Two or more spray-material holders
272	.Piercing connection to supply means	305	...Choice of any one material only
274	WITH MEANS OPERATED BY ART DEVICE	306	...And mixing beyond outlet
284.1	LIQUID SPRAYER FOR TRANSPARENT PANEL (E.G., WINDSHIELD)		
284.2	.Headlamp		

307	...And carrier fluid supply	339	..Liquid inlet port to submerged gas tube
308	..Holder for carrier fluid	340	..Pressure reducer at holder outlet
309	.And frangible seal rupturing means	341	...Relatively adjustable gas and liquid streams
310	..To be mixed, dissolved or entrained in a flowing liquid stream prior to discharge	342	...Auxiliary trap, articulated or plural point inlet to eduction tube
311	..Gas addition upstream of spray nozzle outlet	343	...And diffuser or baffle means (e.g., sudser or foamer)
312	..Diverse discharge outlets for mixed and unmixed fluids respectively	344	...Modified flow path in eduction tube
313	..Follower-type holder and stream egress means in juxtaposition	345	...Discharge from upended or tilted holder (e.g., by gravity feed to reducer)
314	..Mixing beyond liquid stream outlet	346	...Holder coupled to gas supply source
315	..Holder within terminal element carrying member	347	...Flow control by venting pressure fluid to atmosphere
316	..Unitary outlet means and holder	348	....Fluid pressure in carrier supply line is vented
317	..Branching flow and recombining in terminal member	349	...Interconnected pump means and conduit closure or valve
318	..Aspirating discharge nozzle	350	...Measured or trapped quantity for discharge
319	..Moving solid surface supplying material beyond carrier fluid outlet	351	...Motor-operated gas pump
320	..Follower in holder	352	...And supply replenishing means
321	..Floating or biased piston	353	...Plural valves actuated by common operator
322	...Fluid pressure actuated	354	...Including valved eduction tube or closure means
323	..Collapsible or flexible follower (i.e., non-rigid)	355	...Holder carried or mounted gas pump
324	..Screw actuated	356	....Flexible wall gas pump encases liquid holder
325	..Conveyer for fluent solid in holder	357	....Telescoping holder or casing
326	..Temporary storage in wick or pad	358	....Multiple outlet
327	..Resilient holder wall	359	...Having means to lock plunger or pump
328	..Collapsible or foldable supply holder	360	....Pump casing within supply holder
329	..Moving solid surface engages material to be sprayed	361	....Unitary mounting for eduction tube and air pump
330	..Diaphragm and flexible wall gas pump combined	362	....Flexible wall gas pump
331	..Enclosing casing about moving surface	363	....Flexible wall gas pump
332	...Motor-operated	364	...Parallel pressure flows to holder and pressure reducer
333	...Separable pump with holder mount or securing means	365	....Branched flow from main stream to holder
334	...Articulated or plural point ingress to pump	366	....Air and liquid flow paths combine upstream of spray outlet
335	..Three or more spray fluids (e.g., induction of ambient air)		
336	..One a fluent solid		
337	..Fluid pressure discharge means		
338	..Material atomized in holder (e.g., nebulizer)		

367	.....Unitary mounting for pressure fluid inlet and liquid outlet	397	.Selective coupling means for head or nozzle
368	....Air and liquid flow paths combine upstream of spray outlet	397.5	DISTRIBUTOR HAVING THERMAL EXPANSION JOINT, DIFFERENTIALLY EXPANDING MATERIALS OR INSULATION
369	...Air and liquid flow paths combine upstream of spray outlet	398	COMBINING OF SEPARATELY SUPPLIED FLUIDS (I.E., PLURAL FLOW PATHS)
370	....And baffle, diffuser or flow separating means (i.e., nebulizer)	399	.Including whirler device to induce fluid rotation
371	....Concentrically arranged flow paths	400	..Three or more fluids
372	..Gas passage from gas space in holder through fluid outlet means	401	..Axially adjustable valve with fluid conducting stem
373	..Means to pressurize contents of holder	402	..Plural serially arranged whirlers for same or for mixed fluids
374	.Hand-manipulable shaker or jiggle type	402.5	..Adjustable or selective whirl inducing means
375	.Including handle or handgrip for supply container and attached outlet	403	..Whirling of fluid prior to or at point of addition of second fluid
376	..Gravity discharge hand carried	404	...Discrete whirler means for each fluid
377	...Upending or tilting for discharge	405	...Fluid in outer of concentrically arranged paths is whirled
378	...Handle grip and flow controller juxtaposed	406	....Mixing at or downstream of terminus
379	.Gravity flow from holder (e.g., hopper type)	407	.And valving means controlling flow for combining
380	MOTOR OR SPRAY FLUID OPERATED CONTINUOUSLY MOVING DISCHARGE MODIFIER	408	..By terminal ejection valve
381	.Spray fluid operated	409	...Liquid storage means proximate to ejection outlet
382	..Deflector or whirler	410	...Fluid pressure operated valve (mixed or unmixed)
383	...Rotating whirler	411	....By gas pressure
389	...Pivoted on axis transverse to flow	412	..Motor or fluid pressure operated valving means
390	PLURAL INTERCHANGEABLE DISCHARGE MODIFIERS, OUTLET ARRANGEMENTS OR COUPLING MEANS	413	..Valving means for each of diverse fluids
391	.Selectively arrangeable outlet means	414	...Multiway valve or single operator for plural valves
392	..Movably mounted multi-terminal outlet carrying member	415	....For successive valve control
393	...Member rotates on axis transverse to flow path	416	...Relatively movable concentric flow paths effect valving
394	...Member rotates on axis longitudinally of flow path	416.1	...For three or more diverse fluids
395	...Member reciprocates transversely of flow path	416.2	...Plural valves for same fluid
396	.Discharge modifier upstream of terminal outlet	416.3	....Parallel
		416.4	...Concentric flow paths
		416.5	..Concentric flow paths
		417	...Relatively movable flow paths
		417.3	...Valving means for central fluid

417.5	..Discrete flow paths for diverse fluids	439	...Deflector and outlet forming means combined
418	.At or beyond outlet	440	....Two or more concentric annular outlets
419	..With partial preliminary mixing	441	....Central and concentric annular outlets
419.3	...Two of three disparate fluids premixed	442	.By selection of coupling means
419.5	...Induction of ambient air	443	.And valve controlling flow
420	..Including movable means for varying point of convergence	444	..Valving means for each flow path
421	..Including peripheral or annular outlets at junction of opposed coaxial fluid paths	445	...Valved faucet with selective terminal flow paths to discharge (e.g., high or low velocity draft cocks)
422	..Combining of three or more separate fluid streams	446	...Integral or rigidly interconnected valving means
423	..Concurrent or concentric flow means	447	....At least one flow path always open
424	...Flow means of one fluid surrounds the other at outlet	448	....Central flow path
424.5	....Plural passages discharge one fluid to other	449	.....And surrounding ports (peripheral)
425	.....To outer fluid at outlet	450	ADJOINED CONTIGUOUS ELONGATED SPRAY CONDUITS (E.G., PARALLEL CONDUITS)
425.5	.....Ambient air aspirated through inner flow path	451	TERMINAL OUTLET FORMED BETWEEN PARTS MOUNTED FOR RELATIVE MOVEMENT
426	..Streams meet at right angles	452	.Spray fluid pressure responsive discharge modifier
427	..Serially arranged mixing zones (i.e., of same or mixed fluids)	453	..Axially reciprocating closure deflector-type modifier
427.3	..Additions of fluid in zones spaced along flow path	454	...Gravity seated tapered plug
427.5	...At least three diverse fluids	455	.Laterally movable outlet part
428	.Combining of three or more separate streams	456	.Axially movable outlet part
428.5	.Liquid flow induces atmospheric air (e.g., faucet aerator)	457	..Moved by rotatable flow conducting terminal member part
429	.Plural inlets to one stream from another	458	...Radially outer and axially movable part
430	..Three or more inlets to one stream from other	459	..Spring biased nonrotatable controller within discharge guide
431	...Normal to entered stream	460	..Peripherally fluted or grooved member
432	..Including additional dispersing plate or obstruction in mixing chamber	461	FLOW DEFLECTING OR ROTATION CONTROLLING MEANS
433	.Fluid streams have angular junction	462	.And filtering or screening means
434	..Streams meet at right angles	463	.Fluid rotation inducing means upstream of outlet
434.5	..One fluid discharges into other in concentric conical portion of outer conduit	464	..And fluid pressure responsive flow modifying means
435	VALVED FAUCET HAVING CONTRACTING CHAMBER JET FORMING MEANS	465	..And adjustable flow modifier requiring separate insertable tool
436	SELECTIVELY USABLE OR VARIABLE DIVERSE TERMINAL OUTLETS	466	..Serially arranged whirlers
437	.Outlet formed between parts mounted for relative movement		
438	..Axially movable component		

467	..And serially arranged deflector	497	....Multiple angular passages through disc
468	..Whirl chamber transversely offset to single inflow path (i.e., tangential inflow)	498	.Unitary deflector with multiple fingers or serrated edges
469	...Having a central post-like member	499	.Chamber-like deflector
470	....And flow passage in post	500	.Serially arranged deflecting surfaces
471	...Having valved inlet	501	..Surfaces of spiral or helical form
472	..Peripheral and central flow paths in whirler upstream of single terminal outlet	502	.Plural deflectors arranged edgewise to stream
473	...Coaxial valving means and central port	503	..Pivoted into and out of discharge path
474	..Annular egress outlet formed between whirler and casing	504	.Deflector apertured for flow
475	...And centrally ported whirler	505	.Deflector movably or removably mounted relative to outlet
476	..Having flow modifier and external operator therefor carried by nozzle	506	..Deflector is closure
477	...Selective diverse paths to or through terminus	507	..Mounted for movement into and out of deflecting position
478	....One path avoids whirler action	508	...Bail-type pivoting means
479	.....Adjustable between positional limits	509	...Plate means oblique to or on one side of flow path
480	.....Relatively axially movable flow modifier	510	....Exteriorly arranged of flow member
481	.....Rotary, axially movable	511	.....Rotated into deflecting position
482	...Axially aligned nozzle, modifier and stem	512	...Positioned transversely across flow path
483	....Slotted, ported or grooved modifying member	513	..Adjustable to alter degree of deflection
484	.....Member having rotary motion for adjustment	514	...Axially movable deflector
485	.....And motion longitudinally of the axis of rotation	515	....Supported exteriorly of flow outlet
486	..Single planar spiral perpendicular to flow path	516	..Resilient securing means
487	..Axially extending spiral-type flow passage or diverter	517	..Spring form deflector
488	...Having a solid core	518	.Deflector and terminal flow element
489	...In or on flow-passage walls	519	..Resilient or deformable
490	..Integral whirler and terminal head (e.g., terminal nut)	520	..Plural outlets to deflector
491	..Apertured cap surmounts whirler organization	521	..Deflector on one side of flow path
492	...Whirler is cup-like insert with tangential inlets	522	...Multiple or discrete deflecting surfaces
493	...Downstream end of core member slotted to form whirl passages	523	...Dished or arcuate deflector
494	...Whirler is slotted or apertured flat disc or plate	524	..Transverse planar or dished surface type
495	....Deformed plate	525	FLOW LINE OR NOZZLE ATTACHED OR CARRIED HANDGRIP OR HANDLE
496	....Slot in disc face	526	.Pistol grip type
		527	..Single trigger for plural valve actuators
		528	...For sequentially opened valves
		529	.Finger- or hand-attached or worn (e.g., spray glove)
		530	.Sleeve-type grip

- 531 .And hook-like holder
- 532 .Spray pole type
- 533.1 **FLUID PRESSURE RESPONSIVE DISCHARGE MODIFIER* OR FLOW REGULATOR***
- 533.2 .Fuel injector or burner
- 533.3 ..Having flow regulator* for reciprocating piston engine
- 533.4 ...With means to vary or pulse flow within engine cycle
- 533.5Upstream of flow regulator*
- 533.6 ...Manually adjustable
- 533.7 ...Regulator* upstream of outlet port opens in direction of flow
- 533.8 ...Regulator* biased to closed position by a fluid
- 533.9 ...Spring type or biased regulator*
- 533.11 ...With antifriction, guide or seal means for flow regulator*
- 533.12 ...With discharge modifier*
- 533.13 .Resilient or deformable terminal outlet
- 533.14 ..Outlet carried by or formed in a disc
- 533.15 .On-off only
- 536 **SIMILAR TERMINAL MEMBERS IN MULTIPLE ARRANGEMENTS**
- 537 **TERMINAL MEMBER AND VALVE PART MOVE AS UNIT**
- 538 .Rotatable unit
- 539 ..Having axial movement
- 540 ..Disc type
- 541 .Axially movable unit (reciprocating)
- 542 **CONDUIT OR NOZZLE ATTACHED IRRIGATION-TYPE DECELERATOR**
- 543 **ONE FLUID STREAM IMPINGES UPON ANOTHER (I.E., CONVERGING)**
- 544 .Orifices in recessed face
- 545 .Directly opposed outlets
- 546 **INCLUDING MEANS MODIFYING DEFORMABLE TERMINAL OUTLET**
- 547 **DISTRIBUTOR OR NOZZLE IN CIRCUMFERENTIAL WALL OF FLEXIBLE SUPPLY LINE**
- 548 **UNITARY PLURAL OUTLET MEANS**
- 549 .Plural outlets each supplied by different fluid
- 550 .Plural separable nozzles on spray pipe
- 551 .And flow control for each nozzle
- 552 .Insert at terminus forms plural streams
- 553 .Having interior filter or guide
- 553.3 ..Foraminous or apertured member
- 553.5 ..Plural fluid directing means
- 554 .Axial or superposed members arranged to form axially spaced outlets
- 555 ..Stacked plates
- 556 .Arranged in plural groups or rows
- 557 ..All groups identical
- 558 ..Concentric or coaxial groups
- 559 ...In concavo-convex face
- 560 ..Three or more dissimilar groups
- 561 .Three or more dissimilar outlets
- 562 .And flow regulation or control of outlets
- 563 ..Sequential control of outlets
- 564 ...Bi-dimensional control
- 565 .Branched flow line type
- 566 .All in a single straight line
- 567 .All in a concavo-convex face
- 568 .Slit or slot-like apertures
- 569 **INCLUDING VALVE MEANS IN FLOW LINE**
- 570 .Line fluid operated
- 571 ..Flow direction responsive valve
- 572 ..Downstream flow to outlet closes valve
- 573 .And fluid to gas expansion effecting means (e.g., aerosol type)
- 574 .Serially arranged valves (e.g., trap or wet flow line)
- 575 .And filter, sifter or screen
- 576 .Flexing flow conduit or sheath unseats valve
- 577 .Unhinged tilting type
- 578 .Relatively movable remotely arranged operator for controller (e.g., Bowden wire)
- 579 .Movable terminal flow member controls valve
- 580 .Requiring separate insertable tool for adjustment
- 581.1 .Rotary valving
- 581.2 ..Including axial movement
- 582.1 ...Stem or operator extends through flow conduit
- 583 .Reciprocating
- 584 ..Injection nozzle type
- 585.1 ...Electromagnetically operated valve (e.g., ball-type)

585.2With separate operator therefor

585.3Plate-type armature valve (e.g., plate and integral projection or ball)

585.4Elongated armature with integral projection

585.5Needle-type projection

586 ..Transverse to flow path

587.1 **TERMINAL MEMBER ADJUSTABLY OR SHIFTABLY CONNECTED TO FLOW CONDUIT**

587.2 .Plural distinct articulation type flow connections

587.3 ..Includes ball and socket

587.4 .Ball and socket flow connection

587.5 .Pivot type flow connection

587.6 ..With pin in pivot type connection

588 .Flexible coupling section

589 **RIGID FLUID CONFINING DISTRIBUTOR**

589.1 .Fluidic oscillator

590 .Having interior filter or guide

590.3 ..Foraminous or apertures member

590.5 ..Plural fluid directing means

591 .Including flow passage liner (e.g., wear liner)

592 .Flat and tapered

593 ..One wall only tapered to direction of flow

594 ..And remaining opposite side walls converging

595 ..And superposed curved discharge edges

596 .Orifice in separable disc or plate

597 .Elongated orifice in terminal member

598 ..Oblique to direction of flow

599 ..Oval or elliptical

600 .Assembly or disassembly feature

601 .Orifice shapes

602 **MISCELLANEOUS (E.G., RESILIENT NOZZLE)**

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900 **ELECTROMAGNETICALLY ACTUATED FUEL INJECTOR HAVING BALL AND SEAT TYPE VALVE**